

Appl. No. 10/806,288
Amendment dated: July 21, 2005
Reply to OA of: March 21, 2005

Amendments to the Specification:

Please cancel the original title and add the following new title to the application.

--Antibodies to a Fibrinogen Binding Protein of *Staphylococcus epidermidis*--

Please insert the following as the first sentence of the application.

--This application is a divisional application of application number 09/147,405, filed on April 1, 1999 (of which the entire disclosure of the pending, prior application is hereby incorporated by reference) which is now U.S. Patent No. 6,733,758, which is a 371 of PCT/SE97/01091, filed on June 18, 1997.--

On page 10, beginning at line 6, please replace the paragraph with the following amended paragraph.

To obtain the missing 5' and 3' end of the fig gene a Southern blot analysis was performed using chromosomal DNA from strain HB digested with various restriction enzymes. The probe was prepared as follows; two oligonucleotides (5'CAACAACCATCTCACACAAC3' which is SEQ ID NO:1 and 5'CATCAAATTGATATTTCCCATC3' which is SEQ ID NO:2) were used to PCR amplify a ~1.3kb fragment from the insert of pSE100. The PCR generated fragments were 32P-labelled using random priming. After hybridisation using stringent conditions the NC-filter was washed and subjected to autoradiography. The result showed that the XbaI cleavage gave a single band in size of ~6 kb. The corresponding fragment was subsequently ligated into XbaI digested pUC18 vector. After transformation clones harbouring the ~6 kb XbaI-fragment were identified by colony hybridisation using the same probe as in the Southern blot experiment. One such clone, called pSE101 was chosen for further studies. DNA sequence analysis showed that the fig gene consist

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of an open reading frame of a 3291 nt, encoding a protein, called FIG of 1097 aa with a calculated molecular mass of ~119 kDa (Figures 6A-6E). The FIG protein consist of several typical features found among Gram-positive cell surface bound proteins, like a N-terminal signal sequence and a C-terminal 5 amino acid motif (indicated in bold characters ~~at amino acid locations 1053-1057~~), followed by a stretch of 17 hydrophobic aa ending in a stretch of charged aa (Figure 6). Following the signal sequence, there is a region, called A of 773 aa. The insert of pSE100 contains the sequence corresponding to residue 75 to 656 of the A region (Figure. 7). The A region is followed by a highly repetitive region of 216 aa composed of tandemly repeated aspartic acid and serine residues, called R (Figures 6A-6E and 7). The dipeptid region consist of an 18 bp sequence unit (consensus of GAX TCX GAX TCX GAX AGX which is SEQ ID NO:3) repeated 36 times. The 18 bp sequence is almost maintained perfect throughout the whole R region except for the second unit which is truncated, consisting of only 12 of the 18 bp and the 3' end of the region where the consensus sequence is slightly disrupted (units 32, 34 and 36). The changes in the later units also result in an amino acid exchange which disrupt the DS repeat.